

Math

Department

DILS
Delta International Language Schools

Primary 5

First term

2014-2015

Name: ……………………………………………………

Class: 5/………

Unit 1: Numbers and Operations

Approximating to the nearest hundredth and thousandth

(1) Approximate each of the following to the nearest hundredth:

(a) 12.455 ≃ …………………

(b) 857. 296 ≃ …………………

(c) 10.995 ≃…………………

(d) $3\ \frac{17}{500}$ *= ………………≃ …………………*

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(2) Approximate each of the following to the nearest thousandth:

(a) 0.383 ≃ …………………

(b) 52.3723 ≃ …………………

(c) 537.2983 ≃…………………

(d) $8\ \frac{1}{8}$ *= ………………… ≃…………………*

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(3) Find the result of each of the following (write steps)

(a) 65.384 + 63.427 = ……………… ≃…………… (thousandth)

(b) 17.521 + 12 $\frac{1}{8}$ *= ………………≃…………… (hundredth)*

(c) $3\ \frac{3}{8}$ *- 1* $\frac{3}{4}$ *= ……………… ≃ ………………… (2-decimal places)*

(d) 9 – 3.5116 = ………………≃ ……………… (0.001)

(e) 57 days ≃ …………….. weeks

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***(4)** write down the smallest and the greatest decimal fraction that includes the digits (2 , 5 , 7 , 1) , then approximate that number to the nearest hundredth and nearest thousandth.*

Smallest = ... ≃………….. greatest = ... ≃………….

Comparing and ordering fractions

(1) put the suitable sign (> , < , =)

(a) $\frac{5}{8}$ ***…………*** $\frac{3}{8}$ **(b)** $\frac{3}{8}$ ***………… 1*** **(c)** $\frac{8}{5}$ ***…………*** $\frac{8}{3}$

(d) $\frac{3}{5}$ ***…………*** $\frac{6}{10}$ **(e)** $\frac{3}{4}$ ***………*** $\frac{7}{5}$ **(f)** $4\frac{2}{7}$ ***…………*** $4\frac{1}{3}$

(g) 3.05 ……… $3\frac{1}{2}$ ***(h)*** $1\frac{7}{8}$ ***………… 1.125*** ***(i) 3 …………*** $2\frac{3}{3}$

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(2) Arrange each of the following in ascending order :-

(a) $\frac{1}{2}$, $\frac{3}{4}$, $\frac{2}{3}$

The order is :- ………… , ………… , …………

(b) 5.7 , 5 $\frac{3}{4}$ ***, 6.2***

The order is :- ………… , ………… , …………

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(3) Arrange descendingly :-

(a) $3\frac{1}{4}$, $3\frac{1}{2}$, $2\frac{5}{11}$, $3\frac{3}{8}$

The order is :- ………… , ………… , ………… , ………

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(4) Write the possible values of x in each of the following, where x is an integer:

a) $\frac{4}{9} < \frac{x}{9} < \frac{8}{9}$ ***b)*** $\frac{5}{7} < \frac{5}{x} < 1$

Multiplying decimals by 10 , 100 and 1000

(1) ***Multiply***

(a) 0.25 × 10 = ……… ***(b) 3.18 × 10 = ………*** ***(c) 3.2 × 10 = …….***

(d) 0.325 × 100 = ……. ***(e) 12.587 × 100 = ……*** ***(f) 9.7 × 100 = ……***

(g) 147.9 × 100 = …… ***(h)*** $9\frac{1}{5}$ ***× 10 = ………*** ***(i)*** $52\frac{7}{8}$ ***× 100 = ……***

(j) 0.7215 × 1000 = ……. ***(k) 7.32 × 1000 = ……***

(l) ……. × 100 = 58.69 ***(m) (2.14 × 10) + (8.35 × 10) = ………***

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(2) ***Complete:***

a) 5.002 Kg = ………….. grams.

b) L.E 545.8 = …………… piasters.

c) 5.6 km = …………... m.

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Multiplying decimals

(1) Put the decimal point in the underlined number :

(a) 0.9 X 0.3 = 27

(b) 0.2 X 4 = 0.08

(c) 17 X 6 = 1.02

(d) 100 X 0.175 = 175

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(2) Find the product to the nearest (with steps) :-

(a) 325 × 0.23 = ……………… ≃ …………………….. (tenth)

(b) 50.2 × 2.8 = ……………… ≃ ……………………. (1- decimal place)

(c) 0.91 × 0.7 = ………………. ≃ …………………. (whole number)

(d) 7. 05 × 0.05 = ………………. ≃ ………………… (0.001)

(e) 1.2 × 0.009 = ………………. ≃ ………………… (hundredth)

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(3) Ahmed bought 10 pens , the price of each is 0.8 pounds , and two books for each 8.5 pounds . If he had 30 pounds . How many pounds were left with him ?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

Multiplying and dividing fractions

(1) Find the product of the following :-

(a) $\frac{1}{2}$ of $\frac{1}{3}$ = ………………

(b) $\frac{4}{5} \times \frac{2}{3}$ = ………………

(c) $8 \times \frac{3}{4}$ = ………………

(d) $\frac{7}{10} \times \frac{5}{14}$ = ………………

(e) $\frac{5}{6} \times \frac{12}{15}$ = ………………

(f) $10 \times \frac{1}{2}$ = ………………

(g) $3\frac{1}{2} \times \frac{2}{7}$ = ………………

(h) $\frac{5}{6} \times 4\frac{1}{2}$ = …………………

(i) $7\frac{1}{2} \times 2\frac{2}{5}$ = ………………

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(2) Write the reciprocal of each of the following

(a) $\frac{2}{5}$ = ………………………

(b) $\frac{7}{10}$ = ………………………

(c) 6 = ………………………

(d) $\frac{1}{8}$ = ………………………

(e) $3\frac{1}{2}$ = ………………………

(g) $4\frac{3}{4}$ = …………………

(h) $8\frac{1}{6}$ = …………………

(i) 7.25 = …………………

(3) Divide the following (put the result in the simplest form) :-

(a) $\frac{3}{4} \div \frac{9}{10}$ = ……… ×………= ……….

(b) $\frac{9}{10} \div \frac{7}{10}$ = ………×…………= ……….

(c) $\frac{3}{10} \div \frac{2}{5}$ = ………………………

(d) $3\frac{1}{2} \div \frac{7}{4}$ = ………………………

(e) $9\frac{1}{5} \div \frac{23}{25}$ = ………………………

(f) $5\frac{1}{4} \div \frac{1}{16}$ = ………………………

(g) $2\frac{1}{7} \div 1\frac{1}{14}$ = ………………………

(h) $6\frac{1}{2} \div 3\frac{1}{4}$ = ………………………

(i) $\frac{1}{4} \div 3$ = ………………………

(j) $3\frac{1}{3} \div 8$ = ………………………

Dividing decimals by 10 , 100 and 1000

(3) ***Divide***

(a) 96.7 ÷ 10 = ………

(b) 0.251 ÷ 10 = ………

(c) 753.4 ÷ 100 = …….

(d) 4.03 ÷ 100 = ………

(e) 7253.4 ÷ 1000 = …….

(f) 54.071 ÷ 1000 = ………

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(4) ***Complete***

(a) 4.85 × 1000 = 48.5 × ……………

(a) $3\frac{7}{20}$ ***meters = ………….. centimeters***

(b) $4\frac{1}{2}$ ***cm = …………… m***

(c) $9\ \frac{1}{4}$ ***litres = ………… ml***

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Dividing by a 3-digit number

<u>***(1) Find the quotient of each of the following (with steps)***</u>

(1) $29 \overline{)13282}$ ....

(2) $6188 \div 221$

(3) $54060 \div 265$

(4) $125 \overline{)25625}$ ....

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(2) Ahmed bought a car for 28170 pounds .He paid 8450 pounds in Cash and paid the rest in 136 equal installments. Find the value of each installment.

....

....

....

****

(5) A tourist group of 1495 tourists reached Alex Airport to visit Luxor and Aswan. They all got into a train from Alex station. If each train carriage holds 115 passengers, Find the number of carriages they got into.

....

....

....

Dividing by a decimal fraction and a decimal number.

(1) ***Find the quotient in each of the following:***

a) 0.416 ÷ 0.8

b) 0.0874 ÷ 0.46

c) 357 ÷ 0.7

d) 0.7595 ÷ 0.31

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(2) ***A bundle of paper has a height of 4.5 cm. If all its sheets were of equal thickness where the thickness of each paper was 0.090 millimeters, Find how many sheets does the bundle include?***

……………………………………………………………………………………………

……………………………………………………………………………………………

Infinite division

(1) Find the quotient of each of the following

(a) 3 ÷ 4 ***(b) 1 ÷ 8***

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(2) Find the quotient of (With steps) :-

(a) 45672 ÷ 673 approximating to the nearest one decimal place.

b) 2 ÷ 3 approximating to the nearest two decimal place.

c) 4 ÷ 13 approximating to the nearest two decimal place.

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(2) I am a number if you divide me by 631 the quotient will be 30 who am I ?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

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Unit Test

1- Complete:

a) $\frac{7}{80} \simeq$ ………………….to the nearest hundredth

b) $9\frac{3}{25} \simeq$ ………………. to the nearest tenth

c) $39\frac{2}{5}$ - 7.25 =………≃………… to the nearest unit

d) 46.6 dm = …………. cm

e) 3.75 × 1000 = ……………. , 73.475 ÷ 100 =……………

f) ……… × 100 = 42.5 , ………… ÷ 10 = 324

2- Choose the correct answer

a) The quotient of dividing 5.45 ÷ 0.5 = ………….. (1.9 , 1.09 , 10.9 , 109)

b) 327 ÷ 24 = 3.27 ÷ …………… (2.4 , 0.24 , 24 , 2004)

c) $\frac{1}{25}$× 50 × 0.25 = ……………. (4 , $\frac{1}{4}$, $\frac{1}{2}$, 2)

d) 43 days ≃ …………….. to the nearest week (4 , 6 , 5 , 7)

3- Find the result

a) $12\frac{1}{2} \div 6\frac{1}{4}$ = ………………………..

b) 2.4 × 4.7 = ………………………..

c) $\frac{3}{8} \times \frac{2}{9}$ = ………………………..

d) (10.555 – 8.245) ÷ 2.8 = ………………………..

e) 9375 ÷ 15 = ………………………….

f) $\frac{17}{40} \div$ 0.85 = ………………………….

g) If a = 18.24 , b = 8.354 find the result of a + b to the nearest hundredth

4) Mahmoud bought a computer for 2000 pounds . he paid 250 pounds cash money and divided the remainder into 50 equal monthly installments. Calculate the value of each installment.

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5) The length of a piece of cloth is 9.25 m , 12 towels are made of it . the length of each towel is 0.75 m . How many meters are the remainder?

<u>6) Arrange in an ascending order.</u>

$\frac{1}{4}$, ***0.8*** , ***0.4*** , $\frac{1}{2}$, $\frac{3}{4}$

The order : ……… , ………... , ……….. , ………… , …………

<u>7) Arrange in a descending order.</u>

3.4 , 0.0333 , 0.3033 , 3.333 , 0.3303

The order : ………… , ………. , ……….. , …………… , …………

Unit 2: Sets

What is a Set ?

(1) <u>Complete:</u>

The set is ……………………………………………………

……………………………………………………………….

(2) <u>State which of the following is a set and which is not a set , mention the elements of these sets:-</u>

a) Egyptian flag colors.

b) Months of the year.

c) Beautiful flowers.

d) Tall students in your class.

Mathematical expressions of a set

1) The two ways of representing a set are ……………method and ……………… method.

2) **List each of the following Sets :**

a) The set of days of the week

…………………………………………………………………………

…………………………………………………………………………

b) The set of whole numbers which are less that 5

…………………………………………………………………………

…………………………………………………………………………

c) The set of whole numbers between 5 and 6

…………………………………………………………………………

…………………………………………………………………………

3) **Represent each of the following sets by Venn diagram:**

a) X= { 2 , 3 , 4 }

b) The set of the letters of the word Ali

Belonging of an element to a set

(1) Put the suitable symbol **(∈ , ∉) :-**

a) 1 ………..{1 , 5 , 12 }

b) 15 …….. {1 , 5, 12 }

c) 3 ……… { 2 , 20 , 33 , 44 }

d) 7 ………. The set of days of the week.

e) 5 ……….. The set of odd numbers.

Types of sets

1) Write the suitable word (Finite set , infinite set , empty set) :-

a) { 1 , 2 , 3 , 4 , ………….} ………………..

b) The set of cats with 10 legs ………………..

c) The set of prime even numbers ………………….

d) The set of whole numbers between 1 and 2 …………………….

Operations on sets

1) Complete using the opposite venn diagram :-

a) U = ……………………….

b) A = ……………………….

c) B = ……………………….

d) A ∩ B =……………….

e) A ∪ B = ………………..

f) $A^{\backslash}$ = …………………

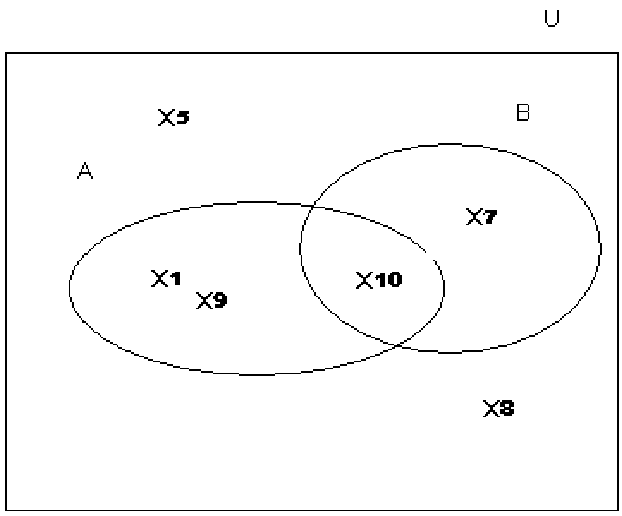
g) $B^{\backslash}$ = ………………..

h) $U^{\backslash}$ = ………………….

i) A – B = ………………

j) B – A = ………………

k) $\Phi^{\backslash}$ = …………………



2) Represent the sets X , Y , U by venn diagram , then complete :-

a) X={ 1 , 2 , 4 , 7 , 0 , 11 }

b) Y ={ 1, 2 , 8 ,9 ,19 , 22}

c) U ={ 1,2,3,4,7,0,11,8,9,19,22,76}

d) X ∩ Y

e) Y ∪X

f) $X^{\backslash}$

g) $Y^{\backslash}$

h) X – Y

Unit Test

1) **Complete by using the suitable symbol ($\in , \notin , \subset , \not\subset$):**

a) 8 ……….{ 7 , 5 , 8 , 88 }

b) {8} …….{7 , 5 , 8 , 88}

c) ∅ ………{ 2 , 4 }

d) { 4 , 8 }…….{ 4 , 5 , 6 , 8}

e) 7 ……..{3 , 5 , 9}

f) {9}……… {99}

g) {1} ……. {1 , 11 , 111}

h) {1 , 2} …… {21 , 12}

2) **Complete :**

a) {3 , 4}∩{2 , 4}=…………

b) {3 , 4}∩{43}=……….

c) {2 , 3 , 4}∩{3 , 5 , 2}=……….

d) {3 , 5} ∪{4, 6}=……….

e) {2 , 4 , 7}∪{1 , 4 , 7}=……….

f) {a , b , c}∪{b , c , a}=……….

3) **If X and Y are two non-empty sets then :**

a) X ∩ ∅ = ……….

b) X ∩ X = ……….

c) if X ⊂ Y then X ∩ Y = ………

d) if X ∩ Y =Y then ……⊂ ……

4) **Complete by putting the suitable symbol ($\in , \notin , \subset , \not\subset$):**

If Y = {2 , 4 , 6} ∪ {1 , 2 , 3} then :

a) {6}……………. Y

b) {1 , 2 , 3 , 4 , 6} …….. Y

c) 6 ……………. Y

5) **If A ={5 , 6 , 7} - {2 , 4} then :**

a) 4 ……. A

b) {6 , 5} …….. A

c) {7}…….. A

d) 7…….. A

e) {2}……… A

6) Complete:

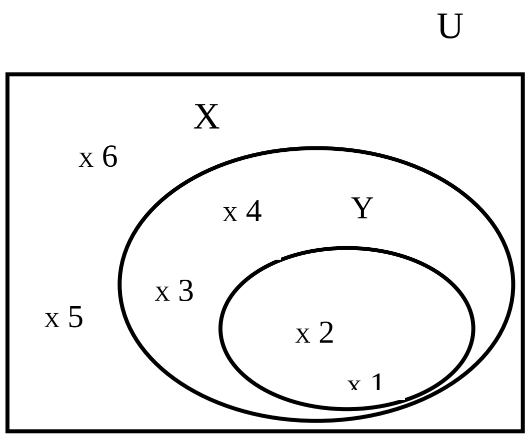
a) If X={2 , 4 , 5}∩{3 , 5 , 7} then 1 …… X
b) {1 , 8}…….{0 , 1 ,2,3,4,5 ,……………..}
c) If X⊂Y then X-Y =………
d) If X …. Y then X ∩ Y =X
e) If X and Y ……. U then X ∪ Y = Y ∪ X
f) {3} …… {3 , 6}
g) 3 …….. {30 , 33}
h) 12 ……. {0 , 2 , 4 , 6 ,……….}
i)) Zero ……. { }
j) 3 …….. the set of factors of the number 18
k) If {3, 6} = {1+x , 3} then x = ……….
l) If X⊂ Y then X- Y = ………..

7) Represent the two sets A and B by Venn diagram in each of the following cases then find A∩B , A∪B , A-B and B-A :

a) A= {1 , 2 , 3 , 6} , B ={2 , 3}
b) A = {4 , 7 , 6 , 5 , 1} , B = {2 , 3 , 4 , 5 , 6}
c) A= {a , m , x} , B ={a , f , x , m}

8) Use the opposite Venn diagram to write the following sets :

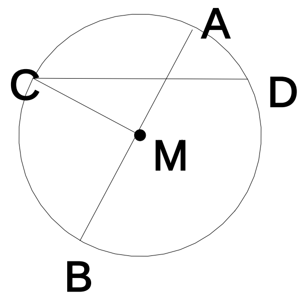
a) X – Y   b) X ∩ Y
c) X ∪ Y   d) $(X - Y)'$



Unit 3: Geometry

The circle

(1) In the opposite figure



(a) The point M is called ....

(b) $\overline{AB}$ is called a .... in the circle.

(c) $\overline{CD}$ is called a .... in the circle.

(d) AM = ... =........ = ...

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(2) Draw circle M with radius MA=4 cm, find the length of the greatest chord .

(3) Draw circle N with diameter AB= 9cm, then draw the chord AC=5 cm. join $\overline{BC}$, then find

(a) m ($\angle$ ACB)

(b)The type of the triangle ABC.

Constructing a triangle

1) Draw a triangle ABC , AB = 5 cm , BC = 6 cm , m(< B) = 50 ° , then find the type of triangle according to its sides , then draw the altitude from A to $\overline{BC}$.

2) Draw a triangle XYZ , in which XY = 6 cm , m(<X) = 120° , m(<y)=30° , Find the type of the triangle according to its angles, then draw the altitude from X to $\overline{YZ}$.

3) Draw the triangle ABC in which AB = 5 cm , BC = 4 cm , CA = 3cm, then find the type of the triangle according to its angles , then draw the altitude from B to $\overline{AC}$.

4) Draw the triangle LMN in which LM = 6 cm , MN = 6 cm , NL = 6 cm , then find the type of the triangle according to its angles, then draw the altitude from L to $\overline{MN}$.

Unit Test

1-Complete:

a) Any chord which passes through the centre of the circle is called ………………

b) If a circle's diameter's length is 8 cm . then its radius length = ………..cm

c) The chord of the circle which passes through its centre is …………………….

d) If the length of sides of the triangle are 6 , 6 , 6 length unit , then it is calle

…………… triangle and the measure of each of its angle =…………….

e) The number of altitudes of the obtuse triangle is ………………

f) The altitudes of the right angle triangle intersect at ……………….

g) The chord which passes through the centre of the circle is called ……………….

h) Any line segment which joins two points on the circle is called ……………….

i) It's possible to draw a triangle if the length of ………….are known

j) The diameter of the circle of radius 1 cm = ………. Cm

k) The triangle which the length of its sides is equal is called ………………

l) The number of altitudes of any triangle is ………………

2- Story problems

a) Draw the triangle ABC in which AB = 6cm, BC = 8 cm, AC = 10 cm then draw the circle M whose diameter is AC . Then find:

- The perimeter of the triangle ABC
- Use the protractor to find the measure of < ABC
- The length of AM , BM , CM
- The type of the triangle MBC due its angles
- Mention two isosceles triangles

b) Draw the isosceles triangle ABC which is a right angled triangle at B where AB = 5 cm. from B draw the line segment which is perpendicular to AC (say BD) and measure its length .

Unit 4: Probability

Lesson 1 : <u>Investigating experiment and outcomes.</u>

<u>Probability</u> means the chance or likelihood that something will happen.

a) If a coin is tossed once , the probability of getting

Head = ...

b) When rolling a dice once , the probability of getting

A number greater than 3 is ....

c) A bag has 9 red balls , 6 black balls , and 3 white

balls. Find the probability of getting:

1) Red ball= ....

2) Black ball=....................

3) White ball=.......................

4) The greatest chance for .... ball .

5) The moderate chance for .... ball .

6) The weak chance for .... ball .

(Think)

What if there are 18 balls in a basket, and the probability

Of picking a red ball is one sixth. So, how many red balls Are there in the basket?

Lesson 2: Certain and impossible events

1- **Complete :**

a) The probability of certain event is ....

b) The probability of impossible events is ....

c) The probability of possible events is between .... and ....

2- **Write "certain" ,"Possible" , or "impossible" :**

Kareem will get the full mark in math. (.................)

The sun rises from the west . (.................)

The day after Friday is Saturday. (.................)

Unit Test

1- Complete:

a) The probability of sure event is…………………

b) The probability of impossible event is………….

c) The probability of possible event between …….and …….

d) As tossing a metallic coin once , then the probability of appearing ahead is ………….

e) As throwing a fair die once , then the probability of appearing a prime number is ………

f) As throwing affair die once , then the probability of appearing a number less than 3 is ………

g) A class has 40 pupils . 15 of them are boys and the remainders are girls. if a pupi chosen randomly , then the probability that the pupil is a girl is ……………

2- Story problems

a) A fair die is thrown once. What is the probability of each of the followinç events?

- Appearing odd number
- Appearing an even number
- Appearing a prime number and not even
- Appearing an odd prime number
- Appearing a number less than 1
- Appearing a number more than 5

b) A bag contains 5 red balls , 8 black balls and 7 white balls . all of them ar identical and equal in volume . a ball is drawn randomly , calculate the probability that:

- The drawn ball is black
- The drawn ball is not green
- The drawn ball is red or white
- The drawn ball is neither red nor white